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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/014,521

12/14/2001

Hiroshi Yabe

XA-9598

3563

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7590

12/18/2006

MILES & STOCKBRIDGE PC
1751 PINNACLE DRIVE
SUITE 500
MCLEAN, VA 22102-3833

EXAMINER

RODRIGUEZ, PAMELA

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 12/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,521

Applicant(s)

YABE ET AL.

Examiner

Pam Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 5-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 5-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Amendment filed October 6, 2006 has been received and considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,269,198 to Fukushima.

Regarding Claim 5, Fukushima discloses a damper assembly (3/23) with a torque limiter 51 having all the features of the instant invention including: the damper assembly having a single torque transmission path between an input axis and an output axis (see column 2 lines 50-63), a friction torque limiter 51 between the input axis or the output axis (see Figure 2) and an airtight damper 3/23, wherein the friction torque limiter is in series with the damper 3/23 (see Figure 2) and limiting the torque which can be transmitted through the damper (see column 4 lines 10-47), and wherein the friction torque limiter 51 is provided inside the damper 3/23 (see Figure 2) and includes a ring member 1 having opposite axial end portions (see element 1 in Figure 1 and its top and bottom outermost ends depicted therein) and a circumferential sidewall portion (see

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Figure 1 and the portion of element 1 located in between the aforementioned outermost ends) joining the opposite axial end portions, wherein the circumferential sidewall portion has a conical periphery (at surfaces 53) providing a friction surface through which torque is transmitted in the friction path (see column 3 lines 65-68).

Regarding Claim 6, see Figures 1 and 3 of the reference.

Regarding Claim 7, see Claim 5 above and further note that the ring member 1 has a conical peripheral friction surface 53 which is frictionally engaged with an adjacent conical surface (i.e., the surface of balls 52) and through which torque is thereby transmitted in the friction path (see column 3 line 65 – column 4 line 30).

Regarding Claim 8, see Figures 1 and 3.

Regarding Claim 9, see Claim 5 above and further note the plurality of friction plates 1.

Regarding Claim 10, note that friction plates 1 are pressed by a spring 55.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,680,918 to Reik et al.

Regarding Claim 2, Reik et al disclose a damper assembly (see Figure 1) with a torque limiter (friction clutch 4), said damper assembly having a single torque transmission path between an input axis (left side of Figure 1) and an output axis (right side of Figure 1) having all the features of the instant invention including: a friction torque limiter (3,52,3a,5a) between the input axis or the output axis (see column 7 lines 47 et al and column 8 lines 1-23) and an airtight damper 9 (see column 9 lines 5-15, i.e., inherently air tight in order to hold the lubricant in the damper chamber), wherein the friction torque limiter is in series with the damper and limiting the torque which can be transmitted through the damper (see Figure 1), and wherein the friction torque limiter is attached outside the airtight damper (see Figure 1 which shows that the torque limiter is outside of damper 9) and includes a torque transmission plate 5a fixed to a drive member of the damper 9, and a friction plate 5A held in frictional engagement with the torque transmission plate 5a by a press plate 52 having a radially outer peripheral portion (see Figure 1 and the portion of element 52 through which bolt 61 passes therethrough) engaged with a radially inner peripheral portion (see Figure 1 and the inner portion of element 4 through which bolt 61 extends therethrough) of a torque transmitting member 4 via bolt 61 and pressed toward the torque transmission plate 5a by a press spring 54 (see Figure 1).

However, Reik et al do not disclose that the press plate is spline-engaged with an inner peripheral portion of the torque transmitting member.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the press plate of Reik et al to be spline-

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engaged with the inner peripheral portion of the torque transmitting member as an alternate means of securing the attachment between the two mating parts. As long as some sort of connection is maintained between the press plate and the torque transmitting member, the means used to secure the two together is arbitrary.

6. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima.

Regarding Claim 11, Fukushima discloses that the friction plates 1 are arranged with a torque transmission member 52 disposed therein.

However, Fukushima does not disclose that the transmission member is a torque transmission plate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the balls of Fukushima for a torque transmitting plate as an alternate means of transmitting the torque throughout the system. Whether a ball structure or a plate type structure is used, as long as the torque is properly transmitted, the means used to do so is merely a matter of design choice.

Regarding Claim 12, Fukushima discloses that the friction plates 1 are engaged with a torque transmitting member 10 of the damper (see Figure 1) and the torque transmission means/plate is engaged with the drive plate 3.

However, Fukushima does not disclose that the engagement between these mating parts is a spline type of engagement.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the friction plates of Fukushima to be spline-

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engaged with the torque transmitting member and the torque transmission means (plate) to be spline-engaged with the drive plate as an alternate means of securing the attachment between the mating parts. As long as some sort of connection is maintained between the friction plates and the torque transmitting member and between the torque transmission plate and the drive plate, the means used to secure the parts together is arbitrary.

Regarding Claim 13, Fukushima discloses that the friction plates 1 are engaged with a radially adjacent member 10.

However, Fukushima does not disclose that the engagement between the parts is a spline-type of engagement.

See the obviousness statement for Claim 12 above which applies here as well.

Response to Arguments

7. Applicant's arguments filed October 6, 2006 have been fully considered but they are not persuasive.

Regarding applicant's arguments with respect to newly amended Claims 5-8, see the rejections of these amended Claims above. Applicant's attention is also directed to the examiner's response to these similar type arguments in the office action mailed April 6, 2006. In particular, with respect to Claims 5 and 7, applicant argues that ring 1 of Fukushima does not have a conical periphery in a circumferential sidewall portion, as now claimed, but rather Fukushima merely discloses conical depressions formed on an axial face thereof.

The examiner contends that the conical depressions 53 are located on a circumferential sidewall portion of ring member 1 of Fukushima as rejected above. Thus, these depressions constitute a conical periphery at least at those depression surfaces. Therefore, the claim limitations are still met.

With regards to applicant's arguments with respect to Claim 2 and the Reik et al reference, the examiner maintains the rejection of this claim for the reasons previously set forth in the office action mailed April 6, 2006. The examiner still contends that a spline connection would merely be an alternate equivalent means of attaching the press plate and the torque transmitting member. As long as this connection is made, the type of connection used is merely a matter of design preference. Further, there is no structure in the Reik et al reference that would negate or discount the use of such a spline connection.

And lastly with regards to applicant's comments concerning new Claims 9-13, see the examiner's rejections of these new claims above.

It is for all these reasons that the rejections have been maintained.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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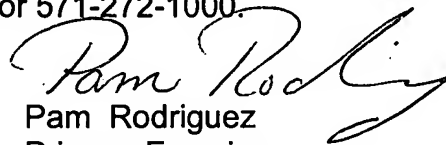
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Mondays 5:30 AM -4 PM and Tuesdays 5 AM -11 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pam Rodriguez
Primary Examiner
Art Unit 3683

12/11/06

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